

REMARKS

This is intended as a full and complete response to the Office Action dated September 20, 2007, having a shortened statutory period for response set to expire on December 20, 2007. Claims 1-20 have been examined. The Examiner rejected claims 1 and 8 under 35 U.S.C. § 103(a) as being obvious over Sugawara (U.S. Patent No. 6,057,951) in view of Cornelius (U.S. Patent No. 6,490,080) or Heidemann (U.S. Patent No. 5,335,109). The Examiner rejected claims 11-17 and 19 under 35 U.S.C. § 103(a) as being obvious over Sugawara in view of Cornelius or Heidemann and further in view of Shi (Pub. No. US 2005/0031355).

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1 and 8 under 35 U.S.C. § 103(a) as being obvious over Sugawara (U.S. Patent No. 6,057,951) in view of Cornelius (U.S. Patent No. 6,490,080) or Heidemann (U.S. Patent No. 5,335,109). In response, Applicants have amended claims 1 and 8.

As amended, claim 1 includes the limitation of an optical pre-amplifier comprising a pair of isolators, a pump laser, and an optical multiplexer and claim 8 includes the step of receiving an input light signal by a pre-amplifier, the pre-amplifier comprising a pair of isolators, a pump laser and an optical multiplexer, wherein a pair of isolators are configured to reject pump power generated by the pump laser and substantially prevent optical reflection in the pre-amplifier. The combination of Sugawara and Cornelius or Heidemann fails to disclose these limitations. As admitted by the Examiner in the Office Action, Sugawara fails to disclose an optical pre-amplifier that includes a pump laser and a multiplexer. Cornelius merely discloses an optical amplifier 20 (see Cornelius col. 4, lines 7-15). Heidemann merely discloses a preamplifier 10 having a pump source 4, a first filter 6a and a second filter 6b, wherein the filters 6a, 6b are configured to filter the pump signal (see Heidemann, col. 2, lines 4-5). None of the references teach or suggest an optical pre-amplifier comprising a pair of isolators, a pump laser, and an optical multiplexer as recited in claims 1 and 8.

As the foregoing illustrates, the combination of Sugawara and Cornelius or Heidemann fails to teach all the limitations of claims 1 and 8. This failure precludes the combination of Sugawara and Cornelius or Heidemann from rendering claims 1 and 8 obvious. Therefore,

Applicants respectfully request the 103(a) rejection of claims 1 and 8 be removed and the allowance of the same. Additionally, since claim 18 and new claims 35-36 depend from claim 1 and claims 9-10 depend from claim 8, these claims are allowable for at least the same reasons as claims 1 and 8.

The Examiner rejected claims 11-17 and 19 under 35 U.S.C. § 103(a) as being obvious over Sugawara in view of Cornelius or Heidemann and further in view of Shi (Pub. No. US 2005/0031355). To expedite prosecution, Applicants have cancelled claims 11-17 and 19. Therefore, Applicants respectfully request the rejection be removed.

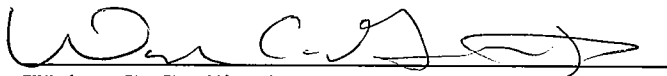
Allowable Subject Matter

The Examiner objected to claims 2-7 and 20 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, Applicants have rewritten claims 2-7 and 20 as new claims 21-27, respectively. Therefore, Applicants believe that new claims 21-27 are in condition for allowance and respectfully request the same. Additionally, since new claims 28-34 depend from claim 27, these claims are allowable for at least the same reasons as claim 27.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the case is in condition for allowance. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,



Walter C. Grollitsch
Registration No. 48,678
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicants